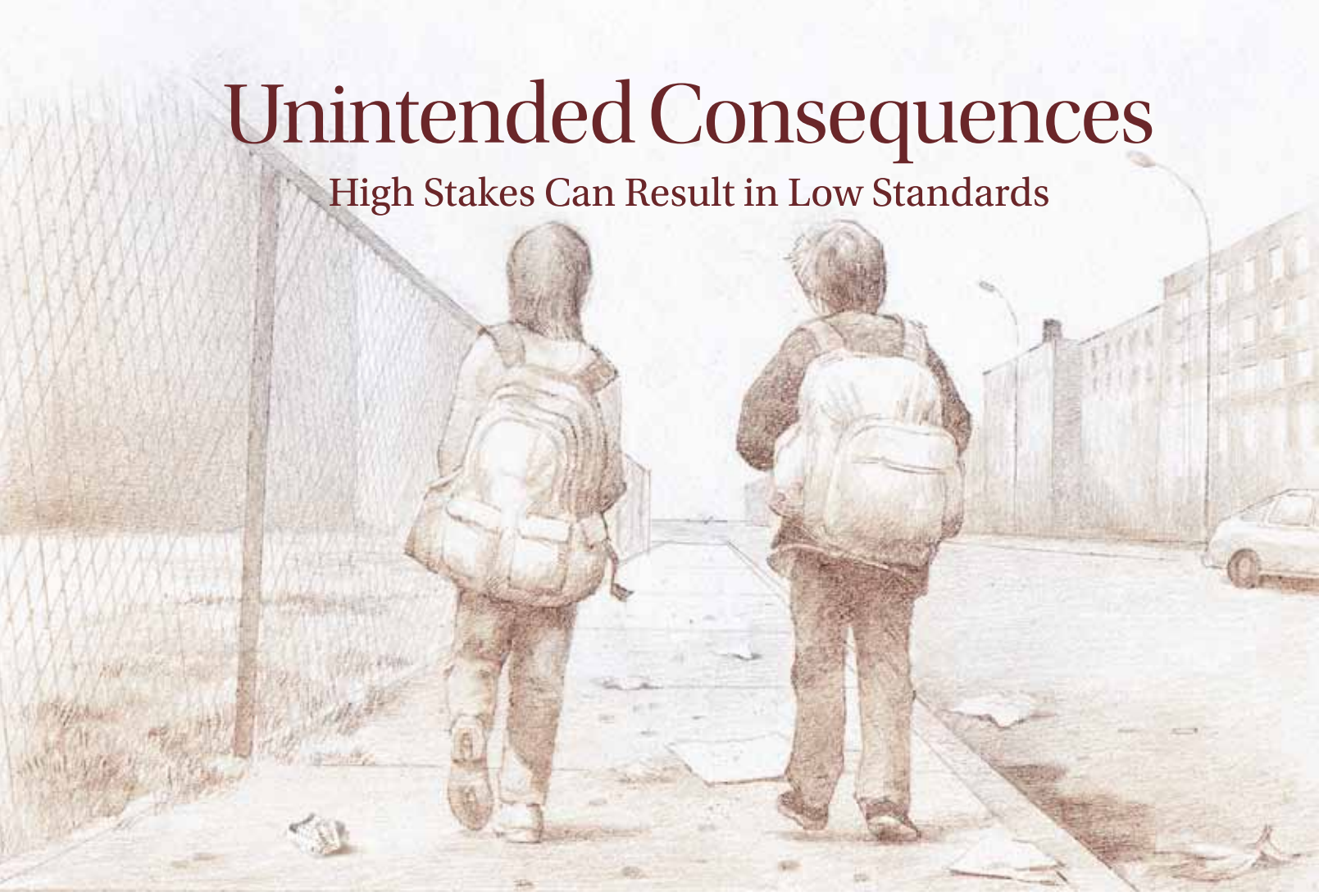
Unintended Consequences

High Stakes Can Result in Low Standards



By Linda Perlstein

A person could live in Annapolis, Maryland, for a lifetime unaware of its poverty.

The city of 40,000 is best known as an exemplar of preppy, nautical affluence; it is home to the buttoned-up U.S. Naval Academy, the pristine, historic State House perched on a hill, and an array of yacht clubs. Those who visit from Washington or Baltimore, 45 minutes away, probably don't know that tucked blocks away are rows of garden apartments that are modest at best, dilapidated at worst, and two glum housing projects known to few beyond their residents and the police.

When Tina McKnight* became principal of nearby Tyler Heights Elementary School in 2000, she found the front office crammed with misbehaving children, like emergency-room patients awaiting triage. The test results were so dismal—a school-wide index suggested that only 17 percent of students performed satisfactorily on the state exam her first year—that at county principals' meetings, she wanted to disappear.

Well aware of the stakes, McKnight wasted little time at Tyler Heights before introducing what she called a "laser-sharp focus" on improvement. Her changes, as well as those imposed by the county's new, hard-charging superintendent, looked a lot like those taking place across America. Students at Tyler Heights began receiving at least two and a half hours of reading and 90 minutes of math instruction each day. Floundering children who once might have been allowed to flop undetected from grade to grade were pulled aside daily for special attention. Students were taught strategies for taking tests, including a formula for crafting written responses, and given all manner of rewards for good answers and good behavior. Anything seen as irrelevant to the Maryland School Assessment (MSA)—field trips, talent shows, Career Day—got pushed back until after the March testing dates.

McKnight, a workaholic even before the laser-sharp focus, usually stayed at school until 10:30 p.m. on weeknights, when the custodians went home, and until dark on Saturdays. (She used to stay later, until a bullet zinged through the office window.) Since she arrived at Tyler Heights her social life had disappeared, as did her season tickets to the theater. McKnight, who was 56, never used up her vacation time; it vanished at the end of each calendar year with the Christmas trash.

It was worth it to her when she thought

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*While students' names are pseudonyms, the staff members chose to use their real names.

of how much Tyler Heights had accomplished on her watch. The place was no longer as dangerous as during her early years, when the police were a regular presence. Students by now had been taught new rules, a new school culture, a new vocabulary for learning. But in this era of provable results in education, where "increasing achievement," "improving student learning," and "demonstrating progress" are just synonyms for upping test scores, McKnight knew that little of that would matter if the numbers didn't come down in her favor.

On the day they finally did, bouquets of flowers arrived at Tyler Heights. The marquee out front was changed to read: OUR MSA SCORES ARE GREAT.

The scores would secure McKnight a place as one of five finalists for county principal of the year. The school's improvement merited articles in the *Washington Post*, the *Baltimore Sun*, and both the editorial and news pages of the Annapolis paper. "In some troubled schools," the *Capital* editorial said, meaning Tyler Heights, "teachers and staff have performed minor miracles—and set an example for others."

"Miracle" was exactly the word Alia Johnson thought of when she heard how her third-graders had scored on the Maryland School Assessment—90 percent passed the reading test, compared with 35 percent of third-graders just two years before. "An example for others," though? She wasn't so sure.

Johnson wanted to make a difference for poor children. But she wasn't sure how much she was, 90 percent proficiency notwithstanding. The widespread mantra of "no excuses" bothered her: no matter how little help students got from parents, no matter if they came to school hungry or abused, lead-poisoned or learning disabled, they had to pass that test. But did the test really tell anyone all they needed to know about the children? Throughout the year, so much was sacrificed to achieve that score. Was it worth it? This revolution had begun with students like Johnson's in mind. But teachers like her wondered: were they doing the best by their children?

* * *

In all the elementary schools in the county, benchmark assessments were given six times a year in math and three times in reading; they were modeled after the questions anticipated on the MSA. Although results were sent to the school board, there were no cosmic consequences for the hourlong tests; they were supposed to be used by teachers to diagnose problems and adjust instruction. But at Tyler Heights, benchmarks were seen as facsimiles of the MSA and treated with commensurate intensity. The first day of school was the last day the third-graders didn't write a BCR—a "brief constructed response," a paragraph-sized answer that's required on the state test.

The benchmarks are no secret, so Johnson looked through the first reading benchmark of the year—4 BCRs and 30 multiple-choice questions—eight school days before her students were supposed to take it.

The benchmark included several topics Johnson hadn't taught yet: the elements of a poem, words with multiple meanings, text features such as boldface type and numbered lists. Two poems on the test were supposed to be compared with each other, ostensibly because they both used metaphor. But metaphor hadn't showed up yet in the scheduled lessons, and the classes had only looked at one poem at a time. Teachers always hear that children in poverty come to school knowing thousands fewer words than their better-off peers, and Johnson figured that among those were several on the vocabulary section of the benchmark, such as *construct* and *vanish*.

"I am very scared," she said.

The next day, Johnson brought her apprehensions to McKnight and asked permission to put aside Open Court, the school's reading curriculum, and daily interventions for all but the total nonreaders, so the third grade could focus on skills specific to the test. They postponed the benchmark until the last possible day of the county's window.

A few years ago, Tyler Heights teachers didn't walk students through problems enough; kids had to fend for themselves. Now the opposite was the norm, part of the school's laser-sharp focus on improvement. For the BCRs, Tyler Heights had a formula called BATS that was explained in posters hung in every classroom: *b*orrow from the question, *a*nswer the question, use *t*ext support, and *s*tretch. "Stretch" means to give a "*s*o I think" or "*s*o I know" sentence—"kind of a bonus," Johnson told her students, that might earn you an advanced score.

Students were taught to fill their paragraphs with what the school calls "hundred-dollar words" and underline them for emphasis. These included transitions, such as "because" or "so I think," and vocabulary from the state content standards, or MSA words, as they're called at Tyler Heights: "character trait," "graphic aids," "dialogue." The children were instructed to review these words on flashcards in their spare time—vastly more attention than was given to the real-world vocabulary from their Open Court stories. They would boast about how many hundred-dollar words they managed to include in each BCR. "*$900!!!*" a proud child would write at the bottom of his page.

Because the benchmark was going to ask the children to compare two poems, the third-graders of Tyler Heights were guided through practice BCRs comparing sets of poems. Because the benchmark was going to ask how they knew a passage was a poem, they wrote practice BCRs about how they knew passages were poems. ("*I know 'Smart' is a poem because it has stanzas and rhyme. I know the text has stanzas and not paragraphs because they didn't indent....*") Because the benchmark would ask students to choose which of several meanings of a given word best matched the example sentence, the third-graders were walked through those types of problems, and because the benchmark would ask which of several words had the same sound as that underlined in the example word, they were walked through those questions too.

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Jamila spent a lot of time eyeing the plastic science bins stacked in the back of Johnson's room. "There's a lot of things in the boxes," she said, eyes big, and indeed there were: chalk and clay, calcite and mica, petri dishes, funnels, thermometers, light bulbs. "I'd like to make inventions and experiments," Roman said. "I want to see stuff—bubbles and all."

"After the MSA," Autumn said wistfully, "we can do social studies and science."

At orientation, third-grade teachers had been told to devote 45 minutes every other day to the science curriculum, which included the very basics of motion and cell structure, nutrition, and plate tectonics.

They were told that science was a stepping stone to all sorts of learning and how much students loved it.

But I saw very little science in the third grade at Tyler Heights. The kits in Johnson's room would be opened to roll marbles one time early in the year, and later to make goo and sculpt a landform and to compare seeds and pebbles in a petri dish. These were only a tiny fraction of the experiments inside, and at any rate, they were presented in class severely abridged—no hypotheses, no data. Mostly students read from the textbook and did worksheets. The only full pass through the scientific method was made after the MSA, in the days spent preparing for the science fair.

"I'm a realist," McKnight had told the teachers. "What gets taught is what gets tested." The rest—even if it is part of the state standards—gets left behind. When it came to the accountability movement, McKnight epitomized the ambivalence of most educators I've met: she was supportive of standards and testing in theory, but painfully aware of the unintended consequences. She was passionate about the subject she used to teach—social studies, and particularly geography—but when it came down to it, social studies fared no better than science.

Tyler Heights' third-graders got only the most cursory introduction to economics and Native Americans, and much of the curriculum was skipped altogether. The students were geographically ignorant. Approaching the Naval Academy after a three-mile bus ride, several shouted, "Look, it's New York!" The third-graders had heard Africa mentioned a lot but were not sure if it was a city, country, or state. (They never suggested "continent.") At the end of the year, the children in Johnson's class were asked to name all the states they could. Cyrus knew the most: three. He couldn't name any countries, though, and when asked about cities, he thrust his finger in the air triumphantly. "Howard County!"

McKnight had asked teachers to give students passages on social studies and science topics for supplemental reading lessons in preparation for the MSA. But the passages the third-graders read touched on random knowledge—Billie Holiday's alcoholism, female Arctic explorers—and breezed by quickly. They were hard to understand on the fly when the children had had such little exposure, at school and at home, to history, culture, and the natural world.†

* * *

At a conference on assessment, a reading specialist from the Maryland Department of Education told teachers and principals desperate to unlock the secrets of the MSA that BCRs are not tests of writing skills at all, but of reading. "I'm not saying kids shouldn't write well-developed paragraphs," she told the standing-room-only crowd. "But that's not what we're worried about on this test."

"You could bullet it, list key phrases, and you could get the same number of points as someone who wrote a well-crafted answer," McKnight said. The formula is a helpful scaffold, she said, but "if the only

†For the relationship between background knowledge and reading skills, see E. D. Hirsch, Jr., *The Knowledge Deficit: Closing the Shocking Education Gap for American Children* (New York: Houghton Mifflin, 2006).

Tyler Heights Is Not Alone

Score Inflation Is Common in Education—and Other Fields

BY DANIEL KORETZ

Every year, newspaper articles and news releases from education departments around the nation tell us that test scores are up again, often dramatically. Usually, there are some grades or districts that have not made substantial gains, and the gaps in performance between poor and rich, and majority and minority, often fail to budge. Nevertheless, the main story line is usually positive: performance is getting better, and rapidly.

Unfortunately, this good news is often more apparent than real. Scores on the tests used for accountability have become inflated, badly overstating real gains in student performance. Some of the reported gains are entirely illusory, and others are real but grossly exaggerated. The seriousness of this problem is hard to overstate. When scores are inflated, many of the most important conclusions people base on them will be wrong, and students—and sometimes teachers—will suffer as a result.

This is the dirty secret of high-stakes testing. You may see occasional references to this problem in newspapers, but for the most part, news reports and announcements of scores by states and school districts accept increases in scores at face value.

When I and others who work on this issue point it out, the reactions often range from disbelief to anger. So perhaps it is best to start on less controversial ground. We see something akin to score inflation in many other fields as well. It is so common, in fact, that it has the name Campbell's law in social sciences: "The more any quantitative social indicator is used for social decision making, the more subject it will be to corruption pressures and the more apt it will be to distort and corrupt the social processes it is intended to monitor."[1] One can find examples of Campbell's law in the media from time to time that provide a hint of how score inflation arises.

The most disturbing example of Campbell's law that I have encountered was reported by the *New York Times* in 2005. The School of Medicine and Dentistry at the University of Rochester had surveyed cardiologists around the state. As the *Times* reported, "An overwhelming majority of cardiologists in New York say that, in certain instances, they do not operate on patients who might benefit from heart surgery, because they are worried about hurting their rankings on physician scorecards issued by the state."[2] Fully 83 percent of respondents said that the reporting of mortality rates had this effect, and 79 percent admitted that "the knowledge that mortality statistics would be made public" had affected their own decisions about whether to perform surgery.*

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thing you're teaching is BCRs, your kids are not learning to write."

The third-graders at Tyler Heights, then, did not learn to write. They learned, thanks to a timer broadcast on the overhead projector, to fill in the box of eight lines in seven to nine minutes. They learned to "proof and polish" with a special purple pen, and whisper their paragraphs to themselves through C-shaped sections of PVC pipe held to their ears—what they called "whisper phoning," a strategy for detecting if your answer makes sense. They learned to adhere to the BATS formula in BCRs like the one Johnson led her students through one day:

> *Damon and Pythias is a play because it has the elements of a play. Some elements of a play are that plays have stage directions. Also, there is a narrator. This play also has a lot of characters. So I know this play has all the features it needs.*

The BCRs tended to repeat themselves, so the children worked on a limited range of questions teachers knew would be on the county benchmark tests and suspected would be on the MSA. The third-graders answered again and again what traits described the main character of a story. They wrote the "*I know this is a play because*" BCR about 10 times but never got to act out a play. They wrote "*I know this is a fairy tale because*" and "*I know this is a fable because*" but never tried their hand at creating either. About a fake brochure they wrote, "*The text features that make this easy for a third-grader to understand are italics, numbering, and underline*." But they never made their own brochures with their own text features; the only things they underlined were hundred-dollar words. They wrote "*I know this is a poem because it has rhyme, rhythm, and stanzas*" about 50 times, Johnson estimated, but they only wrote three poems.

The Tyler Heights teachers knew that the BCR focus was a problem but were either unwilling or unable to veer from the program—they felt they were not allowed. One day in the teachers' lounge, two former teachers who were now an aide and a mentor reminisced about the days when third-graders read novels and did chemistry experiments and worked in groups to design versions of the 13 colonies and did writing, real writing. A resource teacher who was an active part of the school's laser-sharp focus over the last few years began to question her own role. She listened to the veterans and added her two cents. "While our scores were really good last year, can I tell you our kids are any smarter? I don't know."

* * *

Tyler Heights was not explicitly ordered to de-emphasize topics that are not tested; then again, nobody from the school district, and nobody who lauded the school for its scores, bothered to make sure the whole curriculum was taught. On the last day of MSA testing, McKnight said to me, "MSA, that's just the bottom of what kids should know. It's not like we were calling them brilliant. We're still shooting for the basement. We celebrate the bottom right now. I pray we don't have to keep celebrating the bottom." □

So it should not be surprising that when the heat is turned up, educators—and students—will sometimes behave in ways that inflate test scores. Actually, it would be quite remarkable, given how pervasive the problem is in other fields, if none of them did.

Advocates of current test-based accountability systems often counter by arguing, "So what if the gains are distorted? What matters is that students learn more, and if we get that, we can live with some distortion." Hypothetically, yes, we could live with it if we knew that students were in fact learning more, and if the distortions were small enough that they did not seriously mislead people and cause them to make incorrect decisions. But in fact, we usually cannot distinguish between real and bogus gains. Because so many people assume that if scores are increasing we can trust that kids are learning more, there is a disturbing lack of good evaluations of these systems, even after more than three decades of high-stakes testing. What we do know is that score inflation can be enormous, more than large enough to seriously mislead people.

As a result, we need to be more realistic about using tests as a part of educational accountability systems. Systems that simply pressure teachers to raise scores on one test (or one set of tests in a few subjects) are not likely to work as advertised, particularly if the increases demanded are large and inexorable. They are likely instead to produce substantial inflation of scores and a variety of undesirable changes in instruction, such as an excessive focus on old tests, an inappropriate narrowing of instruction, and a reliance on teaching test-taking tricks.

I strongly support the goal of improved accountability in public education. I saw the need for it when I was an elementary school and junior high school teacher many years ago. I certainly saw it as the parent of two children in school. Nothing in more than a quarter century of education research has led me to change my mind on this point. And it seems clear that student achievement must be one of the most important things for which educators and school systems should be accountable. However, we need an effective system of accountability, one that maximizes real gains, and minimizes bogus gains and other negative side effects.

In all, educational testing is much like a powerful medication. If used carefully, it can be immensely informative, and it can be a very powerful tool for changing education for the better. Used indiscriminately, it poses a risk of various and severe side effects. □

Endnotes

1. Donald T. Campbell, "Assessing the Impact of Planned Social Change," in *Social Research and Public Policies: The Dartmouth/OECD Conference*, ed. Gene M. Lyons (Hanover, NH: Public Affairs Center, Dartmouth College, 1975), 35.

2. Marc Santora, "Cardiologists Say Rankings Sway Choices on Surgery," *New York Times*, January 11, 2005.

*These numbers may be off by a modest amount, but not by enough to make the results less appalling. Only 65 percent of the sampled surgeons responded to the survey, which is a marginally acceptable response rate. The risk is that surgeons who did not respond would have given different answers than those who did. But even if all 35 percent who did not respond would have replied to these questions in the negative—an extremely unlikely case—that would still leave more than half saying that publication of mortality measures led to surgeons' declining to do procedures that could have benefited patients.